

# Washington State Institute for Public Policy

Benefit-Cost Results

### Other home visiting programs for at-risk mothers and children

Benefit-cost estimates updated December 2014. Literature review updated April 2012.

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our technical documentation.

Program Description: This broad grouping of programs focuses on mothers considered to be at risk for parenting problems, based on factors such as maternal age, marital status and education, low household income, lack of social supports, or in some programs, mothers testing positive for drugs at the child's birth. Depending on the program, the content of the home visits consists of instruction in child development and health, referrals for service, or social and emotional support. Some programs provide additional services, such as preschool. This group of programs also includes a subset that is specifically targeted toward preventing repeat pregnancy and birth in the adolescent years.

Benefit-Cost Summary								
Program benefits		Summary statistics						
Participants	\$3,299	Benefit to cost ratio	\$0.96					
Taxpayers	\$3,333	Benefits minus costs	(\$212)					
Other (1)	\$1,587	Probability of a positive net present value	47 %					
Other (2)	(\$2,686)							
Total	\$5,533							
Costs	(\$5,746)							
Benefits minus cost	(\$212)							

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2013). The economic discount rates and other relevant parameters are described in our technical documentation.

#### **Detailed Monetary Benefit Estimates**

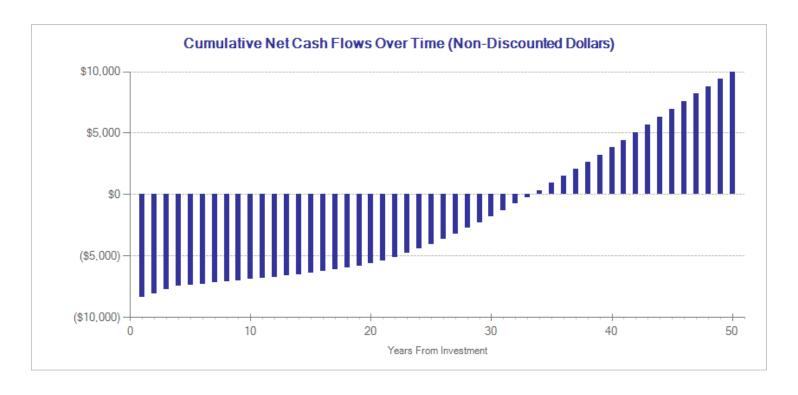
	Benefits to							
Source of benefits	Participants	Taxpayers	Other (1)	Other (2)	Total benefits			
From primary participant								
Crime	\$0	\$1	\$1	\$0	\$2			
Labor market earnings (major depression)	\$582	\$248	\$0	\$0	\$830			
Health care (major depression)	\$31	\$95	\$117	\$48	\$290			
Public assistance	(\$472)	\$1,495	\$0	\$0	\$1,023			
Subtotals	\$141	\$1,838	\$118	\$48	\$2,146			
From secondary participant								
Crime	\$0	\$76	\$203	\$38	\$318			
Labor market earnings (test scores)	\$2,736	\$1,167	\$1,358	\$0	\$5,262			
Child abuse and neglect	\$437	\$20	\$0	\$10	\$468			
Out-of-home placement	\$0	\$73	\$0	\$37	\$110			
K-12 special education	\$0	\$32	\$0	\$16	\$48			
Property loss (alcohol abuse/dependence)	\$0	\$0	\$0	\$0	\$1			
Health care (educational attainment)	(\$16)	\$126	(\$93)	\$63	\$80			
Subtotals	\$3,158	\$1,495	\$1,469	\$165	\$6,286			
Adjustment for deadweight cost of program	\$0	\$0	\$0	(\$2,899)	(\$2,899)			
Totals	\$3,299	\$3,333	\$1,587	(\$2,686)	\$5,533			

We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization and the economic spillover benefits of improvement in human capital outcomes. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Cost Estimates								
	Annual cost	Program duration	Year dollars	Summary statistics				
Program costs Comparison costs	\$5,368 \$0	1 1	2008 2008	Present value of net program costs (in 2013 dollars) Uncertainty (+ or - %)	(\$5,746) 10 %			

WSIPP analysis, based on costs published in Black, M.M., H. Dubowitz, J. Hutcheson, J. Berenson-Howard, and R.H. Starr Jr. (1995) "A randomized clinical trial of home intervention for children with failure to thrive." Pediatrics 95(6): 807-814; Dawson, P., Van Doorninck, W.J., Robinson, J.L. (1989) Effects of home-based, informal social support on child health. Developmental and Behavioral Pediatrics 10(2):63-67; Ernst, C.C., T.M. Grant, A.P. Streissguth, and P.D alcohol and drug-abusing mothers: II. Three-year findings from the. Sampson. (1999) "Intervention with high risk Seattle model of paraprofessional advocacy." Journal of Community Psychology 27(1): 19-38; and Hardy, J.B. and Streett, R. (1989) "Family support and parenting education in the home: An effective extension of clinic-based preventive health care Institute analysis, based on costs published in Black, M.M., H. Dubowitz, J. Hutcheson, J. Berenson-Howard, and R.H. Starr Jr. (1995) "A randomized clinical trial of home intervention for children with failure to thrive." Pediatrics 95(6): 807-814; Dawson, P., Van Doorninck, W.J., Robinson, J.L. (1989) Effects of home-based, informal social support on child health. Developmental and Behavioral Pediatrics 10(2):63-67; Ernst, C.C., T.M. Grant, A.P. Streissguth, and P.D alcohol and drug-abusing mothers: II. Three-year findings from the. Sampson. (1999) "Intervention with high risk Seattle model of paraprofessional advocacy." Journal of Community Psychology 27(1): 19-38; and Hardy, J.B. and Streett, R. (1989) "Family support and parenting education in the home: An effective extension of clinic-based preventive health care services for poor children." Journal of Pediatrics 115: 927-931.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.



Meta-Analysis of Program Effects											
Outcomes measured	secondary	No. of effect	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-					
		sizes				First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Child abuse and neglect	Secondary	11	667	-0.448	0.041	-0.253	0.135	10	-0.253	0.135	17
Test scores	Secondary	6	153	0.325	0.009	0.253	0.122	4	0.053	0.134	17
Major depressive disorder	Primary	4	249	-0.062	0.508	-0.062	0.094	24	-0.032	0.115	29
Out-of-home placement	Secondary	6	330	-0.107	0.636	-0.107	0.226	8	-0.107	0.226	17
Repeat teen pregnancy	Primary	6	576	0.071	0.371	0.079	0.080	19	0.079	0.080	19
Repeat teen birth	Primary	6	650	-0.111	0.434	-0.111	0.141	19	-0.111	0.141	19
High school graduation	Primary	1	392	0.062	0.504	0.062	0.093	22	0.062	0.093	22
High school grad via test scores	Secondary	n/a	0	n/a	n/a	0.017	0.041	18	0.017	0.041	18
Public assistance	Primary	1	184	-0.041	0.761	-0.041	0.135	22	-0.041	0.135	22

## Citations Used in the Meta-Analysis

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## Washington State Institute for Public Policy

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